UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,400	01/09/2002	Laura J. Poplawski	END920010032US1(14761)	9037

		EXAMINER
7590	11/03/2005	LERNER, MARTIN

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ART UNIT	PAPER NUMBER
2654	

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *13 October 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 to 16* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 to 16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent
granted on an application for patent by another filed in the United States before the invention by the
applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States
only if the international application designated the United States and was published under Article 21(2)
of such treaty in the English language.

Claims 1, 2, 5 to 7, 10 to 12, and 15 are rejected under 35 U.S.C. 102(e) as

being anticipated by *Ballantyne et al.*

Regarding independent claims 1, 6, and 11, *Ballantyne et al.* discloses a method,

system, and program instructions for converting XML data from a legacy computer

system, comprising;

"providing a delimited flat file having text and columns with headings" – a "flat file"

is a simple database model, where information is stored in a plain text file, with one

database record per line, each record being divided into fields using delimiters at fixed

column positions (Wikipedia); Figure 4 illustrates a flat file from COBOL legacy code,

with one record per line, columns and headings for date, time, number, city, duration,

cost, etc., where each column is delimited by fields; text data of flat file records includes

cities "San Antoni", "Kill Devil", etc. (column 8, lines 46 to 58: Figure 4);

"providing a map file conforming to said document type definition file and having

tags and attributes including references matching said headings" – modeling/mapping

graphical user interface 30 illustrates the mapping relationship between the XML

schema, the report data model, and the underlying legacy computer program

application depicted as COBOL (column 10, lines 4 to 22: Figures 4 to 6); the mapping

relationship is a program defining a mapping engine 24 for creating modified legacy

program applications (column 10, lines 54 to 65); a mapping is defined by attributes and

tags for XML to match reference headings in COBOL (column 12, lines 11 to 45);

implicitly, a "document type definition file" defines elements of a document as being

COBOL or XML;

"forming a tree structure from said map file for mapping said text from said flat file

into a defined format in said markup language file, and wherein each tag represents one

or more nodes of said tree" – a data structure for an XML schema is a tree structure of

elements (column 11, lines 29 to 47: Figures 7 and 7A); elements correspond to tags for

XML; elements of a tree structure include text elements for "city";

"traversing said nodes of said tree structure, node-by-node, and for each said

node entering said attributes into said markup language file" – a tree structure is utilized

for rewriting a legacy program code from COBOL into XML ("said markup language file")

by traversing the elements of a tree structure for each element (column 11, lines 29 to

47: Figures 7 and 7A); thus, text elements for "address", "city", etc., are obtained from a

source program for a target program by traversing every node of a tree structure of

Figure 7A;

"when said attributes include one of said references, retrieving text from one of

said columns with one of said matching headings of said flat file and entering said text

into said markup language file" – tags are opened from an identified ancestor down

through the called node, and attributes of the nodes along the tree structure are emitted

along with appropriate values (column 12, lines 32 to 45: Figure 8: Step 110); thus, text

for name, address, phone number, etc., for a customer are translated from legacy

program code in COBOL into XML for each element of text in a record.

Regarding claims 2, 7, and 12, *Ballantyne et al.* discloses a mapping relationship

of mapping engine 26 defines correspondences between elements of a legacy program

in COBOL and XML (column 10, lines 4 to 30); implicitly, mapping is applied for all

corresponding elements.

Regarding claims 5, 10, and 15, *Ballantyne et al.* discloses a legacy file in

COBOL, which is a flat file delimited by tabs defining columns for date, time, number,

city and state, duration, cost, etc. (Figure 4).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

Claims 3, 4, 8, 9, 13, and 14 are rejected under 35 U.S.C. 103(a) as being

unpatentable over *Ballantyne et al.* in view of *Baisley et al.*

Ballantyne et al. omits the steps of providing a map file for default text for certain

elements and attributes in the markup language, and entering the default text into the

markup language for attributes having references that do not match headings of the flat

file. Ordinarily, it would be presumed that all corresponding elements of matching

between a source flat file and an object file are provided, but it is well known that there

are exceptional instances where they may not, whereupon a default procedure must be

specified. (Analogously, when a file name is not specified for saving the file in

Windows®, an opening text segment of a file is designated as a default file name.)

Baisley et al. teaches a procedure for converting from one modeling language to

another, wherein object models existing in a Uniform Modeling Language (UML) are

converted to models existing in a Meta Object Facility Language (MOF). Specifically, it

is stated that it is not always possible to generate a name for each unnamed element,

and generated names often do not serve the purpose of describing the named element.

Thus, when no name is provided, or when a name is omitted from both ends, the end's

type may be a suitable name, a numeral may be appended to an offending name that

violates a rule constraint of UML, or it may be given the name "Contains". (Column 4,

Line 49 to Column 5, Line 67) The objective is to provide a set of rules for making a

transformation between models in object-oriented programming languages with a

predictable mapping. (Column 1, Lines 39 to 67) It would have been obvious to one

having ordinary skill in the art to apply the default naming conventions taught by *Baisley*

et al. in the method and system for modifying legacy programs into XML of *Ballantyne et*

al. for the purpose of providing transformation rules between programming languages

with a predictable mapping.

Response to Arguments

Applicant's arguments filed 13 October 2005 have been fully considered but they

are not persuasive.

Applicant presents two arguments. Firstly, Applicant argues that the claimed

method, system, and program converts data, while *Ballantyne et al.* converts program

applications. Applicant maintains that independent claims 1, 6, and 11 are directed to

converting text in a delimited flat file to text in a markup language specified by a

document type definition file. Applicant says *Ballantyne et al.* does not do this; instead,

Applicant says *Ballantyne et al.* modifies a computer program. Secondly, Applicant

argues that *Ballantyne et al.* mentions trees, but only discloses that trees and nodes are

used to test whether the modified application has generated a correct output. Applicant

cites Column 11, Line 65 to Column 12, Line 44 of *Ballantyne et al.* These arguments

are not persuasive.

Firstly, *Ballantyne et al.* is concerned with converting text as well as an overall

computer program. Applicant's claims provide for a delimited flat file having text and

columns with headings. Figure 4 shows a legacy computer program written in COBOL

containing at least one column of text for a city of a telephone billing record. A first line

represents a billing record and contains a text entry for city of "San Antoni". Text entries

for a city in a telephone billing record represent data, and are not just a computer

program *per se*. Figure 5 shows how corresponding text entries are represented in XML. A representation of data in XML includes a text entry for <called city> of San Antonio on a 20th Line. Moreover, *Ballantyne et al.* shows a billing schema for XML containing "textonly" fields in Figure 5A. Thus, it is clear to one skilled in the art that *Ballantyne et al.* converts textual data of a called city as well as an overall computer program so that there is a schema for placing textual data entries from a legacy source program written in COBOL into a target program written in XML.

Secondly, *Ballantyne et al.* does more than simply provide for trees and nodes to test whether an application has generated a correct output. Applicant's cited Column 11, Line 65 to Column 12, Line 44 is describing part of a test procedure for a flowchart to determine whether all nodes of a computer program were rewritten so that a target program is complete. Thus, Applicant's citation sets forth a step in a flowchart testing whether more nodes in a tree of nodes still need to be processed to rewrite a computer program into a target format. However, *Ballantyne et al.* does employ a tree structure with nodes to represent elements of corresponding source and target computer programs. Figure 7A shows how a tree of a data record for a customer contains nodes representing a name, address, street, city, state, etc., for that customer. When a source program refers to elements of a customer record, a tree structure represents the same elements in a program-neutral intermediate format, so that corresponding elements can be easily placed into appropriate slots of a target program. Clearly, *Ballantyne et al.* does not merely provide for tree and node structures to test a target program after completion as to whether it operates to generate a correct output. Instead, *Ballantyne*

et al. utilizes trees and nodes to identify corresponding data structures of source and

target programs on a node-by-node basis.

Therefore, the rejection of claims 1, 2, 5 to 7, 10 to 12, and 15 under 35

U.S.C. 102(e) as being anticipated by *Ballantyne et al.*, and of claims 3, 4, 8, 9, 13, and

14 under 35 U.S.C. 103(a) as being unpatentable over *Ballantyne et al.* in view of

Baisley et al., are proper.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

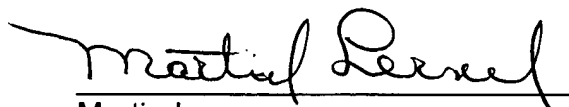than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Martin Lerner whose telephone number is (571) 272-

7608. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to

Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ML
10/25/05

Martin Lerner
Examiner
Group Art Unit 2654